Ladders for boats, CATAS test procedures

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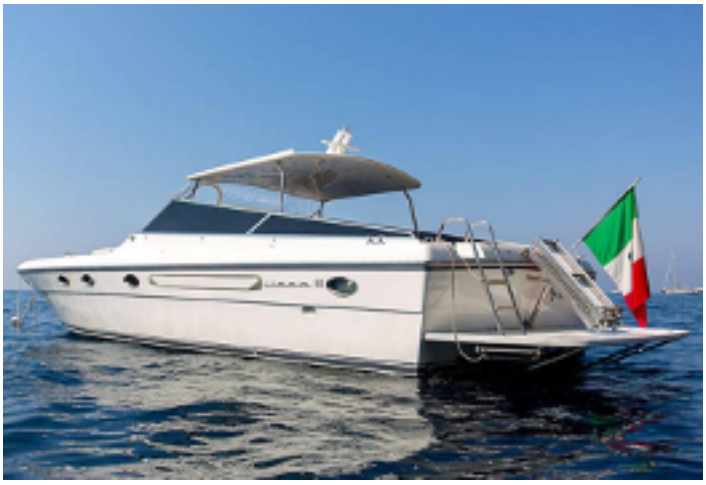

This experience started from the need of a manufacturer of boat ladders to test a specific rotation mechanism. Since there is no reference standard to rely on, we have agreed on a test procedure that includes a static load phase and a handling phase, repeated for a defined number of cycles.

The first phase requires that the ladder is locked on the lower step to prevent the rotation of the mechanism and a force of 500 N through both handles is applied for 10 seconds (See fig. 1).

The second phase involves the release of the lower step and the rotation of the mechanism until reaching the ladder of the horizontal position by means of a handle (See fig. 2).

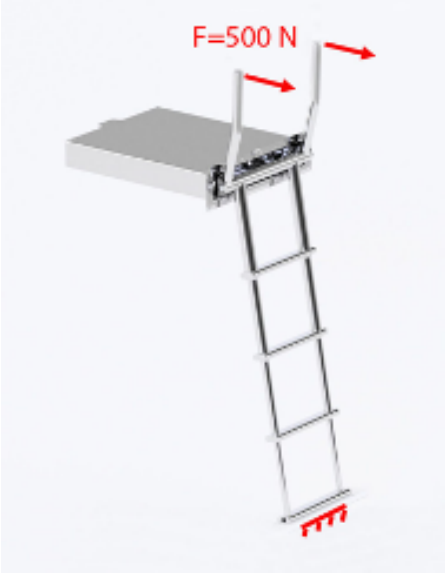

Figure 1

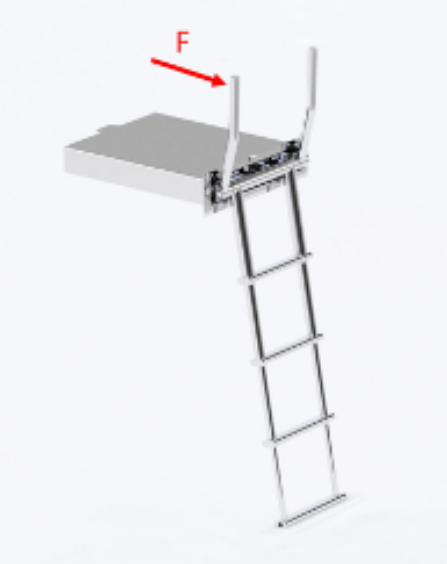

Figure 2

The whole process was repeated for 20,000 cycles allowing our client to define an internal protocol to test and to improve his production with possible positive consequences also on the marketing strategies of the company.

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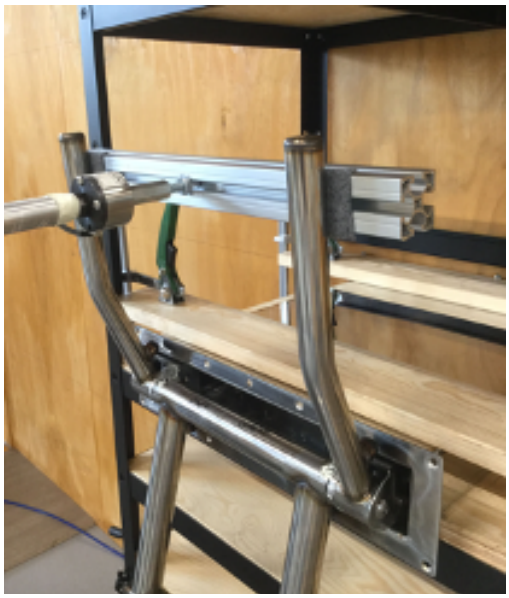


Photo 1

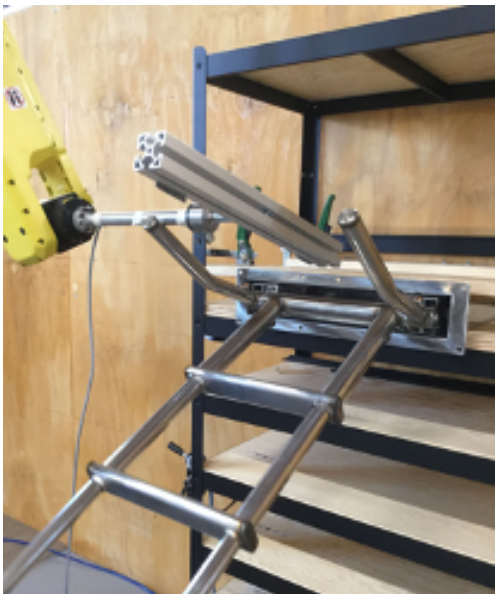
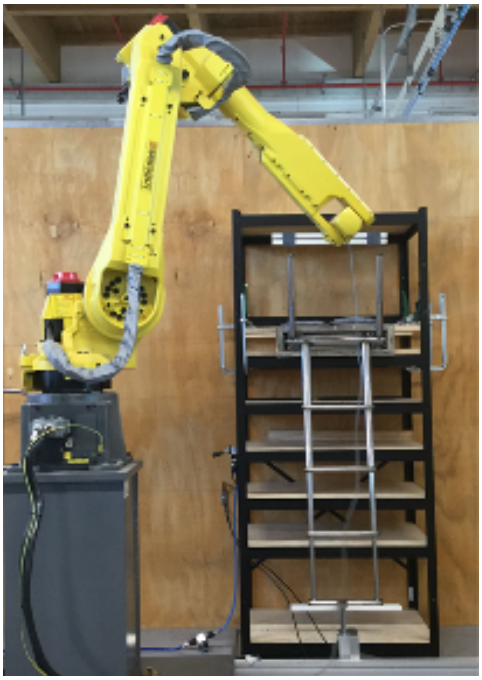


Photo 2

Images of the ladder under test in the phases of static load (Photo 1) and movement of the mechanism by means of a handle (Photo 2).



This short example gives the evidence that the use of anthropomorphic arms duly programmed and connected to load cells for the control of the applied force, allows us to test particular types of products following ad hoc procedures agreed with the customer in order to satisfy his needs.

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